

Family TURNICIDÆ [Hemipodes].

Turnix nana (Sund.). (Kelsall.)

Family PHASIANIDÆ [Game-Birds].

Francolinus bicalcaratus thornei Grant. (Thorne, Parks, Kemp, Kelsall, Lowe i, ii.)*Francolinus lathami lathami* Hartl. (Kemp.)*Francolinus ahantensis* Temm. (Kemp, Kelsall.)? *Ptilopachus fuscus fuscus* Vieill. (P. Niel ex Jardine Coll.)* *Coturnix coturnix*. (Kelsall.)*Excalfactoria adansoni* (Verr.). (Kelsall.)*Guttera cristata* (Pall.). (Afzelius, Manger.)*Numida meleagris* Linn. (Lowe ii.)XVI.—*J. F. Miller's Icones.*

By C. DAVIES SHERBORN and TOM IREDALE.

MILLER'S *Icones Animalium* : [Various Subjects of Natural History] 1776–1785, may be regarded as a rare book. Dryander, Cat. Bibl. Banks, states "10 pp., 60 pls." ; Pritzel copies him ; Watts gives no details, but wrote "London, 1785 : Large folio. £6. 6. 0." Lowndes says "1785. 176 pp., 12 pls. and 2 leaves of text" ; Engelmann contents himself with "In Nos. 1785." Eliminating Lowndes' entry which is obviously incorrect, the conclusion can be reached that the book was issued in 10 parts and contained 60 plates, which is the extent of the 'Cimelia Physica,' a well-known work. The 'Cimelia Physica' was issued in 1796, and consists of 60 plates by Miller with 106 pages of explanatory text written by George Shaw.

When Sherborn completed the 'Index Animalium' 1758–1800, the only known (to him) copy was in the British Museum from Sir Joseph Banks's library, and this contained

* Named binomially and no author given, as it is not clear which Quail is intended.

only 36 plates with six sheets of explanatory text. The names there introduced were duly recorded in the Index. A few days ago Sherborn secured a fine copy which contained 54 plates and 9 sheets of text. These sheets are bound in position each with six plates succeeding, so that the work was apparently issued in parts, each part with 1 sheet and 6 plates ; and thus now we have evidence of the first nine parts, the tenth being yet unknown to us in the original state. From internal evidence we conclude the parts were issued at about the following dates :—pt. i. 1776 ; pt. ii. 1776 ; pt. iii. 1777 ; pt. iv. 1777 or 1778 ; pt. v. 1779 or 1780 ; pt. vi. 1782 ; pt. vii. 1782 ; pt. viii. 1783 ; pt. ix. 1784, and pt. x. 1785.

That it was issued in parts seems certain from Latham's quotations, as instance : in the first volume of the 'General Synopsis of Birds' in the synonymy of the Secretary Vulture (p. 20) Latham cited "*Falco serpentarius* J. F. Miller t. 28." As Latham's preface is dated Jan. 1, 1781, Miller's plate apparently appeared prior to that date. At the end of vol. ii. Latham includes "A Catalogue of the Principal Authors," and there gives :—

"*Miller Illustr.*] By this is meant Miscellaneous
J. F. Miller, Misc. Plates] Plates of *Quadrupeds, Birds, &c.*
 coloured, in folio. By *John
 Frederick Miller*."

Latham's book was published in 1785, and he only cites the first thirty-six plates, which suggests the only copy he referred to was the one in the Banksian Library.

In the Nat. Miscellany, under pl. 533, Shaw wrote :— "The figure here given is copied from the beautiful representation published by Mr. Millar (*sic*) in his splendid plates of natural history" ; and he quoted as well as "*Cimelia Physica*, p. 96, t. 52," "*Millar (*sic*) Illustr. nat. hist. pl 52*," which we regard as confirmation of independent publication.

As the '*Cimelia Physica*' is an easily accessible work the details hereafter given are compared with that book. The date of this is 1796, and the title-page states :

“ Figures by John Frederick Miller. With descriptions by George Shaw.” The plates are not so well coloured, and in cases of doubt reference to the original edition should be made. All the plates in the ‘Cimelia Physica’ are lettered, while in the original edition this is not so. The names in the text of the ‘Cimelia Physica’ are sometimes altered by Shaw, as are also some of the localities given by Miller in the original.

A complete collation is here appended, with notes on some interesting points.

Pt. I. Plate 1. *Loxia orix*, dated Mch. 10, 1776.

Antholyza cunonia Bot.

2. *Loxia coronata*, dated 1776: in C. P. the text is headed *Loxia coronata* var. *L. dominicanæ*.

Alstromeria ligata Bot.

3. *Loxia longicanda*, dated 1776: in C. P. the text is headed *Emberiza imperialis*.

Gnaphalium eximium Bot.

4. *Psittacus atricapillus*, dated 1776: in C. P. the text is headed *Psittacus melanocephalus*.

Chelone penstemon Bot.: also later altered to *Penstemon lavigata*.

5. *Psittacus aurantius*, dated 1776: in C. P. the text is headed *Psittacus solstitialis*.

Illicium floridanum Bot.

6. *Upupa promerops*, dated 1776.

Eryngium alpinum Bot.

Pt. II. Plate 7. *Barringtonia speciosa* Bot., dated 1776.

8. *Ampelis carolinensis*. Plate dated 1776, but not named.

Locality given as “America septentrionali,” all the preceding being without localities. In C. P. the text is headed *Ampelis garrulus*.

Amaryllis crispa Bot.: later altered to *A. undulata*.

9. *Antholyza aethiopica* Bot. Plate dated 1776, but not named.

10. *Cerrus alces* Mamm. do. do.

11. *Lacerta chameleon* Rept. do. and named.

12. *Larus albus*. do. but not named.

Locality given as “in Regionibus septentrionalibus.”

Pt. III. Plate 13. *Lemur murinus* Mamm. Plate named and dated 1777.

14. *Struthio casuarinus*. Plate dated 1777, but not named.

Locality given as “Asia, Sumatra, Molucca, Banda.”

In C. P. the text is headed *Casuarius galeatus*.

- Plate 15. *Muscicapa striata*. Plate dated 1777, but no names.
 Locality given as "Ad fretum Hudsonis."
Ampelis cristata. Locality "in America."
16. *Columba coronata*. Plate dated 1777, but not named.
 Locality "Capite bonaë spei."
17. *Falco plancus*. Plate dated 1777, but not named.
 Locality "Tierra del Fuego."
18. *Falco fuscus*. Plate dated 1777, but not named.
 Locality "Greenlandia."
- Pt. IV. Plate 19. *Canis hyæna* Mamm. Plate neither named nor dated.
Canis Lupus, niger.
20. *Viverra tetradactyla* Mamm. Plate named but not dated.
21. *Parus hudsonicus*. Plate dated 1777, but no names.
 Locality "in America sept."
Fringilla hudsonica. Same locality.
Emberiza teucophrys. do.
 In C. P. in the text the name of the second is altered to *Emberiza hyemalis*.
22. *Platalea leucorodia*. Plate dated 1777, but not named.
 Locality "Europa."
23. *Aptenodytes patagonica*. Plate named but not dated.
 Locality "in Mari antarctico."
24. *Cuculus indicator*. Plate named but not dated.
 Locality "C. B. Spei."
Fringilla cyanocapilla. Locality "Senegal."
- Pt. V. Plate 25. *Brucea antidysenterica* Bot. Plate lettered "Brucea" only and not dated.
26. *Testudo sulcata* Rept. Plate neither named nor dated.
27. *Homo Lar* Mamm. Plate named but not dated.
 In C. P. the text is headed *Simia longimanus*.
28. *Falco serpentarius*. Plate named and dated 1779.
 Locality "Cap. B. Spei." In C. P. the text is headed *Vultur secretarius*.
29. *Psittacus guineensis*. Plate named but not dated.
 Locality "Guinea."
30. *Trochilus gularis*. Plate named but not dated.
 Locality "India orientali."
Fringilla torquator (on plate, *torquata* in text).
 Same locality.
- Motacilla gularis*. Locality "America meridionali."
- Pt. VI. Plate 31. *Jerboa capensis* Mamm. Plate named but not dated.
32. *Lemur bicolor* Mamm. do. and dated 1782.
33. *Otis indica*. do. but not dated.
 Locality "India orientali."
34. *Aptenodytes magellonica*. Plate named but not dated.
 Locality "Terra magellanica." Text in C. P. headed *Pinguinaria magellanica*.

Plate 35. *Ardea nævæa*. Plate named but not dated.

Locality "America meridionali."

36. *Ardea torquata*. Plate named and dated May 16, 1782.

Same locality. In C. P. these two plates are transposed and text headed to agree, though the plates retain the original numbering.

Pt. VII. Plate 37. *Carolinea princeps* Bot. All plates from here to end named but not dated.

38. *Motacilla thoracica*. "India orientali." In C. P. text headed *Motacilla aurata*.

Heliconia marantifolia Bot.

39. *Felis capensis* Mamm. "C. B. Spei."

40. *Aptenodytes antarctica*. "in Antaretieo." Text in C. P. headed *Pinguinaria antarctica*.

41. *Coracias versicolor*. "in Surinamo."

42. *Fringilla brevicola*. "Zeylona." In C. P. the text is headed *Loxia zeylonica*.

Fringilla atrocephala. "America meridionali." In C. P. the text is headed *Fringilla melanocephala*.

Pt. VIII. Plate 43. *Hibiscus cannabina* Bot. In C. P. this is altered in text to *Hibiscus speciosus*.

44. *Antirrhinum quadrifolium* Bot.

45. *Aristolochia hirsuta* Bot.

46. *Sciurus fulvus* Mamm. "America meridionali."

47. *Trochilus maculata*. "America meridionali."

Rallus ecaudata. "in Otaheita."

48. *Cuculus aurocephalus*. "America meridionali." In C. P. the text is headed *Cuculus chrysoccephalus*.

Pt. IX. Plate 49. *Aptenodytes crestata*. "Falkland Island." In C. P. the text is headed *Pinguinaria cirrhata*.

50. *Fringilla forficata*. "Zeylona."

Rallus nigra. "Otaheita." In C. P. the text is headed *Rallus tabuensis*.

51. *Cuculus crestata*. "India orientali." In C. P. the text is headed *Cuculus discolor*.

52. *Promerops purpureus*. "India orientali." In C. P. the text is headed "Upupa erythrorhynchos."

53. *Oriolus gularis*. "Ameriea meridionali." In C. P. the text is headed "Oriolus pictus."

54. *Picus quadrimaculata*. "Zeylona."

At this point the original copy studied ends, but as there are only 60 plates in the 'Cimelia Physica' the remaining six are here noted, all at present dating from 1796, though probably they will later prove to have been published in 1785, as suggested by Watts's entry :—

- Plate 55. *Hirundo zonaris*.
 56. *Artonia capensis* Bot.
Oriolus trifasciatus.
 57. *Ramphastos indicus*.
 58. *Alcedo formosa*.
 59. *Columba rosea*.
 60. *Jerboa capensis* Mamm.

It is probable that were the first thirty-six plates carefully examined some alterations in ornithological nomenclature would be necessary. In the 'Auk,' 1908, p. 269 note, Riley comments upon *Falco fuscus* in connection with *Buteo platypterus*, but he does not appear to have seen the original edition, as he does not give the definite locality there mentioned, and, moreover, only quotes the book as appearing in six parts, each with six plates. In 'The Ibis,' 1915, p. 235, Claude Grant gave particulars of the plate of the Secretary Bird. He apparently did not go through the British Museum copy or he would have noted *Cuculus indicator*, which he discussed in the same paper. It is strange how African ornithological nomenclature is still in such a confused state with so many workers interested in the birds of that continent. Thus *Cuculus indicator* was first published by Sparrman in the Philos. Trans. vol. lxvii. pt. i. p. 43, 1777, and the genus name *Indicator* was first published by Stephens in Shaw's Zoology, vol. ix. p. 138, 1815, yet neither of these references is correctly quoted. The two most important changes noted in the foregoing are also in connection with African birds.

PHœNICULUS PURPUREUS (Miller).

This now will be the correct name for the bird long known as *Irrisor viridis*, afterwards as *I. erythrorhynchus*.

RALLUS NIGRA Miller.

This name is undoubtedly earlier than *Rallus niger* Gmelin, and as it refers to a very different species two changes are necessary. In both complications can be observed, as *Rallus nigra* Miller is the bird long known as *Porzana tabuensis* (Gmelin), but the correct application of the latter name is

not definitely ascertained. Thus J. R. Forster described a black bird, but noted there was a brown variant. His son painted the Black Rail from "Taheitee," and this painting is preserved in the British Museum (Natural History), No. 130, with the native name "Maho" pencilled on it. This drawing was copied and published with little alteration by Miller under the name *Rallus nigra*. Forster's MS. name was *Rallus minutus*, and his localities were "Otaheitee et in Tonga-Tabu." Latham's descriptions were incorporated by Gmelin, who introduced Latin names, and this was called *Rallus tabuensis*, though Latham did not appear to have had specimens from Tongatabu. It is probable that the Tahitian Rail is distinct from the Tongatabu species, especially as a black Rail is known from Henderson Island, viz. *P. atra* North (= *murrayi* O.-Grant). However, it is impossible to continue the name *Limnocorax niger* (Gmelin) for the African Black Rail, and the choice seems to be between *Rallus carinatus* Swainson and *Gallinula flavirostra* Swainson, the latter introduced as the former was inapplicable and also indeterminate. Thence it would be that the African Rail would be called *Limnocorax flavirostra* (Swainson), but subspecies may be determinable.

PENNULA ECAUDATA (King).

Why this name was ever accepted is one of the puzzles provided for the present generation by the previous one of British ornithologists. The identification of "a rail, with very short wings and no tail, which on that account, we named *rallus ecaudatus* (sic)," is surely impossible, and fortunately the publication of Miller's plate under the same name negatives any further discussion. Miller's *Rallus ecaudata* was from Otaheita, and proves to be an absolute copy of G. Forster's painting No. 127, which has been continually accepted as referable to the "Otaheitean" form of the Philippine Rail. What the name of the Sandwich Island *Pennula* is, appears again puzzling, as various students have arrived at different results, but probably Rothschild's usage of *Pennula millsi* with the other species *Pennula sandwichensis* is the best.

APTENODYTES CRESTATA Miller.

The complications around this name will be discussed later, as this is an Austral-Neozelanic species, and the details are very confusing.

ARDEA NÆVIA Miller.

This is earlier than *Ardea nævia* Boddaert in use for the American form of *Nyeticorax nycticorax*, and it appears doubtful whether these are exactly the same thing.

OTIS INDICA Miller.

This name was first proposed by Forster in 1781, but appears as an absolute *nomen nudum*. It has been used ex Guielin, whose account is based solely on Miller, but has lately been rejected in favour of Latham's *aurita*. The beautiful painting seen in the original edition of Miller's plates so exactly applies to the " *Syphæotis* " that the name must be revived and the bird known as *Syphæotides indica* (Miller).

These notes will draw attention to the necessity of reconsidering the whole of the names involved in these works, and recourse can always be made to the volume here studied, which has been placed in the library of the British Museum (Natural History).

Mr. B. B. Woodward has pointed out to us that in Rees' New Cyclopædia, Vol. xxxii., under the article about George Shaw, it is definitely stated that sixty plates were published by Miller under the title " Various Subjects in Natural History, wherein are delineated Birds, Animals, and many curious Plants," but that the lack of letterpress proved a drawback, and consequently these plates were republished under the title " *Cimelia Physica*," descriptions being supplied by George Shaw. The title above cited agrees with that given by Watts, who adds " with the parts of Fructification of each Plant, all of which are drawn and coloured from Nature."